

Amendments to Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Claims 1-15 (Cancelled).

16. (Previously presented) A method of making a molecule useful for making a silicon-containing polymer, the method comprising the steps of:

(a) preparing a reaction mixture comprising a carbosiloxane monomer, a carbosilane monomer, a chain-end crosslinking molecule, and an ADMET catalyst; and

(b) placing the reaction mixture under conditions that result in the production of the molecule selected from the group of molecules consisting of the molecule of claim 37 and the molecule of claim 39.

17. (Previously presented) The method of claim 16, wherein the reaction mixture comprises the carbosilane monomer and the carbosiloxane monomer in a molar ratio of between about 1:5 and 1:100.

18. (Previously presented) The method of claim 17, wherein the molar ratio is less than about 1:7.

19. (Previously presented) The method of claim 16, wherein the reaction mixture comprises the monomers and ADMET catalyst in a molar ratio of between about 1:1 and about 5000:1.

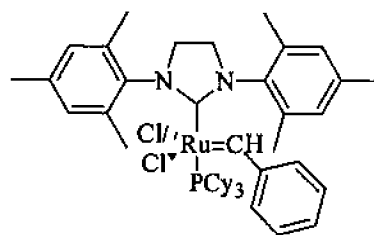
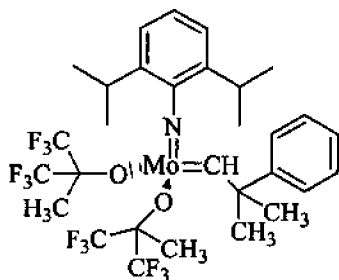
20. (Previously presented) The method of claim 19, wherein the reaction mixture comprises the monomers and ADMET catalyst in a molar ratio of between about 1200:1 and about 100:1.

21. (Canceled)

22. (Previously presented) The method of claim 16, wherein the reaction mixture comprises the carbosilane monomer, the carbosiloxane monomer, and the chain-end crosslinking molecule in a molar ratio of about 1-100:1-100:1-100.

23. (Previously presented) The method of claim 16, wherein the reaction mixture comprises less than 20 mole percent of the carbosilane monomer and the chain-end crosslinking molecule.

24. (Previously presented) The method of claim 16, wherein the catalyst is selected from:



25. (Previously presented) The method of claim 16, wherein the step (b) comprises placing the reaction mixture under dry conditions.

26. (Previously presented) The method of claim 16, wherein the step (b) comprises placing the reaction mixture in an argon atmosphere.

27. (Previously presented) The method of claim 16, wherein the step (b) comprises subjecting the reaction mixture to a vacuum force.

28. (Previously presented) The method of claim 16, wherein the step (b) comprises adding heat to the reaction mixture.

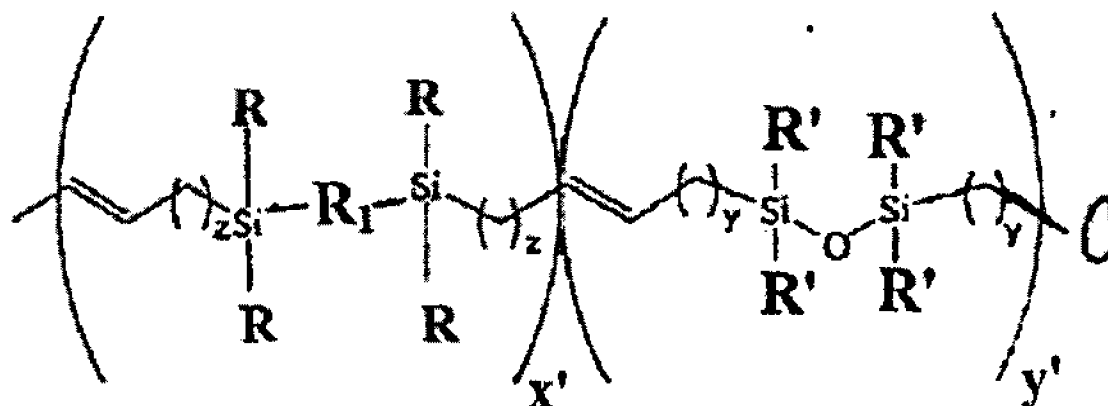
29. (Previously presented) The method of claim 25, wherein the step (b) results in the production of a cross-linkable polymer.

30. (Previously presented) The method of claim 29, further comprising exposing the cross-linkable polymer to water to form a cross-linked polymer.

31. (Previously presented) The method of claim 30, wherein the water is atmospheric moisture.

Claims 32 -36. (Canceled).

37. (Previously presented) A polymer comprising the structure:



wherein:

R is a latent reactive group selected from the group consisting of hydrogen, alkoxy, phenoxy, and halogen;

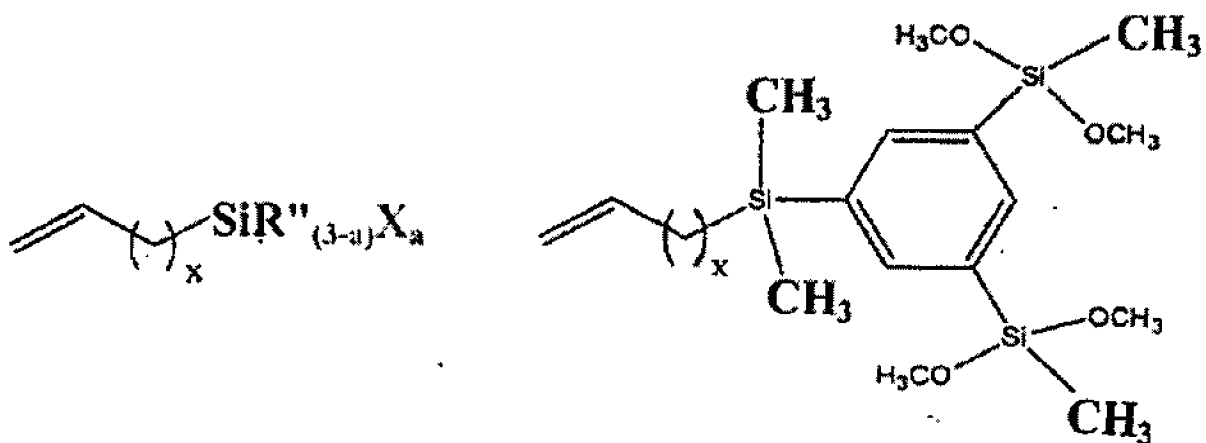
R' is selected from the group consisting of alkyl, phenyl, hydrogen, halogen, alkoxy, and phenoxy;

R₁ is a hydrocarbon chain having at least two CH₂ groups;

coefficients z, x' and y' are integers greater than or equal to 1;

coefficient y is an integer greater than or equal to 2; and

C is a chain-end cross-linking molecule derived from a compound selected from:



wherein:

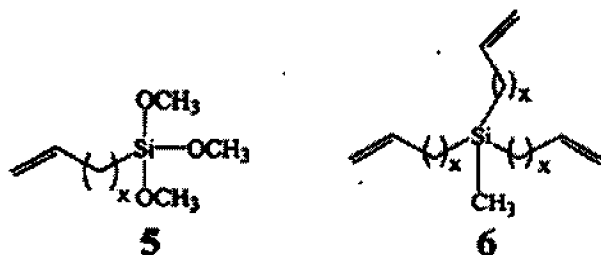
x is an integer greater than or equal to 2,

R'' is any hydrocarbon,

X is OMe, OR'' or NR'', and

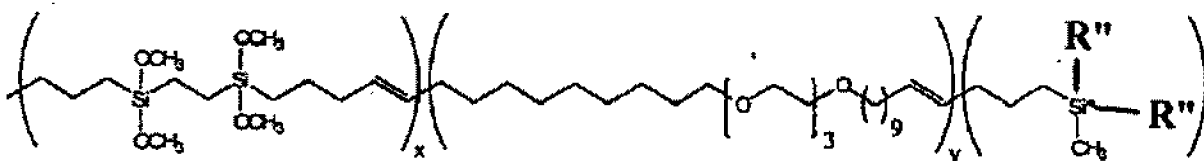
coefficient a is an integer ranging from 0 to 3.

38. (Previously presented) The polymer of claim 37, wherein C is derived from a compound selected from the group consisting of compound 5 and compound 6 having the structure:



wherein, x is an integer greater than or equal to 2.

39. (Previously presented) A polymer comprising the structure:



wherein, coefficients x, y and z are integers greater than or equal to 1, and R'' is selected (CH₂)_nCH=CH₂ and (CH₂)_nCH=, wherein,

(CH₂)_nCH= is a branching site whereby adjacent polymers are cross-linked and n is an integer greater than or equal to 2.

40. (New) A polymer comprising at least two cross-linkable polymers selected from the group consisting of the polymer of claim 37 and the polymer of claim 39, wherein the at least two cross-linkable polymers are cross-linked via a chain-end crosslink, a Si-O-Si linkage, or both.